

Factoring Review

Name_____

Factor each. Look for a GCF.

1. $6w^4 + 3w^2 - 9$

2. $3q^2 + 6q^5 + 9q$

3. $10wz^2 - 5wz + 15w^2z$

Factor each polynomial completely. Look for special patterns!

4. $x^2 - 25$

5. $4y^2 - 16$

6. $y^2 - x^2$

7. $49x - xy^2$

8. $x^2 + 2xy + y^2$

9. $X^2 + 10x + 25$

10. $16x^2 + 24x + 9$

11. $64x^2 - 48xy + 9y^2$

12. $12x^4 - 12$

13. $m^2 + 9m + 20$

14. $c^2 - c - 72$

15. $y^2 + y - 156$

Factor each trinomial as a product of binomials. If the trinomial is unfactorable, label it prime. (*Check if it is prime using the discriminant!!*) There are two primes.

16. $x^2 + 5x + 12$

17. $a^2 - 9a + 14$

18. $p^2 + 18p + 45$

19. $m^2 - 3m + 17$

20. $2x^2 + 6x + 3$

21. $6x^2 + 8x - 30$

Factor each using grouping.

22. $3a + 3 - a^2 - a$

23. $ab^2 + 5a - 6b^2 - 30$

24. $3m - 12 + m^3 - 4m^2$

25. $xy + 2y + x + 2$

26. $3x^2 + 3xy - 2xy - 2y^2$

27. $x^2 + 3x + 4x + 12$